MICROCTONUS APIOPHAGA, NEW SPECIES, (HYMENOPTERA: BRACONIDAE, EUPHORINAE) A PARASITE OF ADULT APION WEEVILS IN BRITAIN (COLEOPTERA: CURCULIONIDAE)

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ABSTRACT—*Microctonus* **apiophaga**, new species, is described from Britain and separated from the type-species *M. aethiops* (Nees).

Freeman (1967) reared a species of *Microctonus* Wesmael tentatively identified as *M. aethiops* (Nees) from adult *Apion dichroum* Bedel at Wye, Kent. R. D. Eady of the Commonwealth Institute of Entomology showed me some individuals of this species from the collection of the British Museum (Natural History), London. The material consists of Freeman's series and a second lot reared from *Apion assimilis* Kirby by P. Williams at Silwood Park, Berkshire. Freeman (1967) observed that the weevil is parasitized in the head through the base of one of the antennae. The *Sitona* and *Hypera* hosts of *M. aethiops*, however, are parasitized in the abdomen between the apical tergum and sternum (Loan and Holdaway, 1961). This ethological difference suggested that the braconid was not *aethiops*, and in fact this has been confirmed by a study of the material. The species appears to be undescribed as it does not agree with the types of *Microctonus* in the British Museum (Nat. Hist.) nor with the Thomson types in the Zoological Institute, Lund. Furthermore, it is the only species of this genus so far associated with *Apion* weevils. It is described in this paper as *Microctonus apiophaga*, new species, and its type is accessioned in the British Museum (Nat. Hist.).

Microctonus apiophaga Loan, new species

Fig. 1–4

Holotype female. Length about 1.9 mm. Bicolorous. Head, scape and pedicel, legs light yellowish; flagellum reddish dusky; eye in death light greyish; thorax castaneous; wing veins well-infuscated; propodeum, gaster behind tergum 1 reddish black with tergum 1 not quite as dark; ovipositor sheaths light dusky. Head polished and smooth; genae and frons next to eye with sparse, inconspicuous hair, frons otherwise impunctate and glabrous; face with short, fine hair not apparent in front view, somewhat shagreened with short, transverse, very fine striae; face about as wide as apex of tergum 1 or as wide as combined lengths of flagellar segments 1 + 2; temple not quite as wide as eye which is 1.5 times as long as wide; malar space not unusually pronounced, 0.5 times length of flagellar segment 1; flagellar segments 19, 1 + 2 + 3 2.0 times temple width or 0.5 times as long

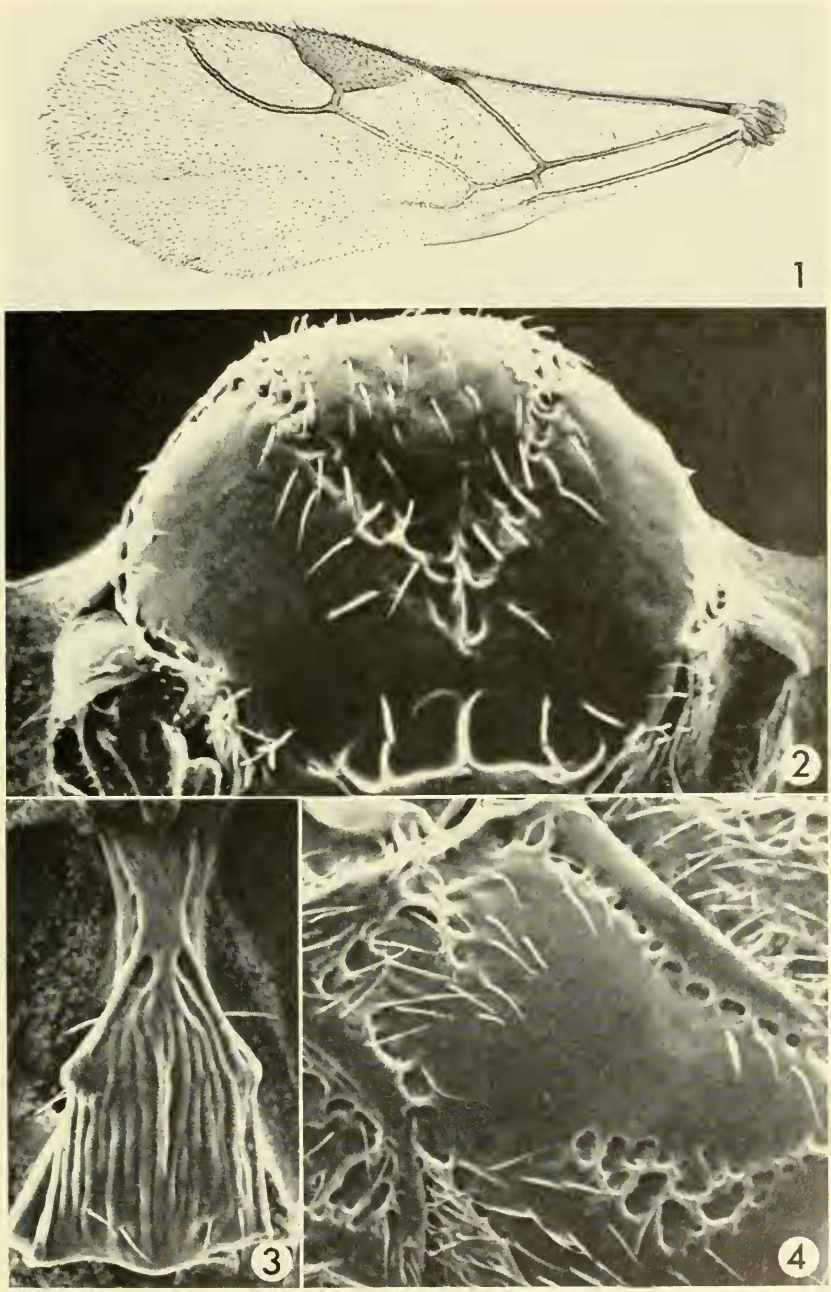

Fig. 1–4. *Microctonus apiophaga*. 1, front wing, × 55. 2, mesonotum, × 225. 3, tergum 1, × 230. 4, mesepisternum, × 230.

as tibia III, obviously hairy as well as scape and pedicel; ocellar triangle somewhat obtuse at median ocellus; OOL:POL, 3:4; lateral ocellus behind posterior eye margin; occipital carina weak or indistinct medially a distance slightly exceeding POL. Notaulices (fig. 2) foveolate with rugulae in area of convergence; scutum with short, distinct hair and weak punctures rather pronounced anteriorly; lateral lobes of mesonotum shining, glabrous except some long hairs extending from margins of notaulices; mesepisternum (fig. 4) with patch of carinate foveae below tegulae and similar sculpture marking sternaulis, otherwise smooth and polished. Front wing as shown (fig. 1): stigma and radial cell both long, stigma 3.0 times as long as wide and radial cell about 0.8 times as long as stigma; first abscissa of radius approximately vertical to stigma and nearly 0.5 times as wide; basella broken just above its middle, lower abscissa equal to nervellus, which is vertical. Propodeum finely reticulate, posterior face excavated medially. Tibia III 0.61 mm long. Tergum 1 (fig. 3) not quite 2.0 times as long as wide at apex, striate, dorsal pits between base and spiracles pronounced; ovipositor sheaths not quite as long as tergum 1, 0.6 times as long as tibia III.

Types: Holotype: ♀, England. Wye, Kent, 28.VII.66 ex *Apion dichroum*, B. E. Freeman. Type in the British Museum (Nat. Hist.) from material presented by the Commonwealth Institute of Entomology.

Paratypes: England. 13 ♀, 7 ♂: 3 ♀, 4 ♂ data like type; 1 ♀ like type data except with the date 7, 1965; 3 ♀ like type data except labelled Sidelands and dated VIII, 1964; 6 ♀, 3 ♂, Silwood Park, Berks., ex *Apion assimile*, P. Williams, females dated 12-21.XI, 1965 and males dated 25.X-17.XI, 1965. Paratype deposition: Freeman's series, in the British Museum (Nat. Hist.), London; Williams' series, split between the Canadian National Collection, Ottawa; U. S. National Museum, Washington; and Institute of Zoology, Leningrad.

Remarks: The head, thorax, gaster, scape and pedicel of the antennae of males are generally blackish; the flagellum is a dull reddish brown; and the legs are testaceous with femur I not as dark as II and II not as dark as III. The antennae of only six male specimens are complete and in these the flagellum is 21-segmented (2 specimens) and 22-segmented in the remainder.

In females, the mesepisternum of a single specimen is yellowish like the head whereas the others are like the holotype; and tergum 1 is usually reddish brown rather than reddish black with the apex in some specimens somewhat pale. The flagellar segments varied as follows: 18 (2 specimens); 19 (6 specimens); and 20 (2 specimens).

M. apiophaga can be recognized from the type species *aethiops* by these characters:

apiophaga	*aethiops*
♀ tibia III 0.65 mm long avg., about as long as ♂ tibia III	♀ tibia III 0.75 mm long, avg., longer than ♂ tibia III
radial cell 0.8–1.0 times as long as stigma	radial cell about 0.5 times as long as stigma

first abscissa of radius 0.5 times as long as stigma width
tergum 1 less than 2.0 times as long as wide at apex
ovipositor sheaths not quite as long as tergum 1
♀ flagellum 18–20 segments, ♂ 21–22

first abscissa of radius less than 0.5 times stigma width
tergum 1 somewhat more than 2.0 times as long as wide at apex
ovipositor sheaths 1.2–1.3 times as long as tergum 1
♀ flagellum 22–24 segments, ♂ 25–27

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